IN THE SPECIFICATION

Please replace the paragraph beginning at page 3, line 4 through page 4, line 3, with the following rewritten paragraph:

Specifically, the present invention provides the following (1) to (9):

(1) an enzyme derived from an actinomycete of the genus *Streptomyces*, which is capable of degrading a polyhydroxyalkanoate resin, having a molecular weight between approximately 47,000 to 56,000, having an optimum pH between 4 and 10, and having an optimum temperature between 40°C and 55°C;

(2) the enzyme according to (1) above, which is inductively produced by polyhydroxyalkanoate, hydroxybutyric acid, polyhydroxybutyrate, and/or hydroxybutyric acid ester;

(3) the enzyme according to (1) or (2) above, wherein the actinomycete of the genus *Streptomyces* is *Streptomyces thermovulgaris*, *Streptomyces thermoolivaceus*, *Streptomyces thermohygroscopicus*, or *Streptomyces thermocarboxydovorans*;

(4) the enzyme according to (1) or (2) above, wherein the actinomycete of the genus *Streptomyces* is a microorganism deposited under accession No. ~~FERM P-19578~~ FERM BP-10158;

(5) a method for degrading a polyhydroxyalkanoate resin, which comprises causing the polyhydroxyalkanoate resin to come into contact with the enzyme according to any one of (1) to (4) above so as to cause the resin to react with the enzyme;

(6) a method for degrading a polyhydroxyalkanoate resin, which comprises causing the polyhydroxyalkanoate resin to come into contact with an actinomycete of the genus Streptomyces so as to cause the resin to react with the ~~actinomycete~~ actinomycete at 40°C to 55°C;

(7) the method according to (6) above, wherein the actinomycete of the genus *Streptomyces* is *Streptomyces thermovulgaris*, *Streptomyces thermoolivaceus*, *Streptomyces thermohygroscopicus*, or *Streptomyces thermocarboxydovorans*;

(8) the method according to (6) above; wherein the. actinomycete of the genus *Streptomyces* is a microorganism deposited under accession No. ~~FERM P-19578~~ FERM BP-10158; and

(9) an actinomycete of the genus *Streptomyces*, which is capable of degrading a polyhydroxyalkanoate resin and is a microorganism deposited under accession No. ~~FERM P-19578~~ FERM BP-10158.

Please replace the paragraph beginning at page 6, line 20 through page 7, line 3, with the following rewritten paragraph:

The present inventors have also discovered a novel actinomycete of the genus *Streptomyces* that produces the above enzyme from soil. This novel actinomycete of the genus *Streptomyces* was obtained as follows. Polyhydroxybutyrate (number average molecular weight (Mn) of 2.1×10^5) was dispersed on each agar medium. Soil (collected at Tsukuba-shi) was placed on a plate containing such agar medium, and culture was then conducted at 50°C. The novel actinomycete was obtained from bacteria that had formed clear zones. From among strains confirmed to have degradation activity, a strain that had formed obvious clear zones within 24 hours of culture and had particularly high activity was named the MG2 strain. The MG2 strain was deposited internationally under the regulations of the Budapest Treaty with the International Patent Organism Depositary of the National Institute of Advanced Industrial Science and Technology (Tsukuba Central 6, 1-1-1 Higashi, Tsukuba, Ibaraki, Japan) as of November 4, 2003 under accession No. ~~FERM P-19578 (FERM ABP-10158)~~ FERM BP-10158. The above actinomycete strain (MG2) could be cultured under a temperature between 25°C and 60°C and showed good proliferation

particularly at 50°C. As a result of phylogenetic analysis, it was discovered that the MG2 strain is a novel bacterial species showing 97.0% and 96.5% sequence similarity with *Streptomyces thermocarboxydovorans* and *Streptomyces thermodiastaticus*, respectively.

Please replace the paragraph at page 8, lines 3-5, with the following rewritten paragraph:

A further preferable actinomycete of the genus *Streptomyces* that is used in the method of the present invention is an actinomycete belonging to the bacterial strain that was internationally deposited under accession No. ~~FERM P-19578~~ FERM BP-10158.

Please replace the paragraph at page 8, lines 6-7, with the following rewritten paragraph:

An example of a particularly preferable actinomycete is the MG2 strain that the present inventors have deposited under accession No. ~~FERM P-19578~~ FERM BP-10158.

Please replace the paragraph at page 10, lines 16-21, with the following rewritten paragraph:

Polyhydroxybutyrate (number average molecular weight (Mn) of 2.1×10^5, "BIOGREEN" produced by MITSUBISHI GAS CHEMICAL COMPANY. INC.) was dispersed at 1% on an agar medium (a medium with the composition as shown in Table 2 that had been supplemented with agar) on a plate. Soil collected at Tsukuba-shi was placed on the plate, and culture was then conducted at 50°C. The novel ~~actinomycete~~ actinomycete was obtained from among bacteria that had formed clear zones.